UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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ART UNIT	PAPER NUMBER
3624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _17 February 2009_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-37_ is/are pending in the application.

    4a) Of the above claim(s) _15-24 and 34-37_ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-14 and 25-33_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   This **Final** Office Action is in response to Applicant's amendment filed November

17, 2008 and Applicant's response to the Restriction filed February 17, 2009.

Applicant's amendment amended claims 1-37. Currently claims 1-37 are pending with

claims 15-24 and 34-37 being withdrawn as directed to a non-elected invention.

Election/Restrictions

2.   Claims 15-24 and 34-37 withdrawn from further consideration pursuant to 37

CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable

generic or linking claim. Election was made **without** traverse in the reply filed on

February 17, 2009.

Response to Amendment

3.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action.

        The Objection to claims 14 and 25 in the office action mailed June 17, 2008 is

withdrawn in response to Applicant's amendment to the claims.

        The 35 U.S.C. 101 rejection of claims 1-37 in the office action mailed June 17,

2008 is withdrawn in response to Applicant's amendments to the claims.

Response to Arguments

4.   Applicant's arguments with respect to claims 1-14 and 25-33 have been

considered but are moot in view of the new ground(s) of rejection.

It is noted that the applicant did not challenge the officially cited facts in the

previous office actions therefore those statements as presented are herein after prior

art.   Specifically it has been established that it was old and well known in the art at the

time of the invention to use a plurality of aggregation functions including but not limited

to those recited in claims 8-13, 19-24, 33 and 37.

Specification

5.   The listing of references in the specification is not a proper information disclosure

statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other

information submitted for consideration by the Office, and MPEP § 609.04(a) states,

"the list may not be incorporated into the specification but must be submitted in a

separate paper." Therefore, unless the references have been cited by the examiner on

form PTO-892, they have not been considered.

Examiner requests a copy of the cited reference A. Netz, OLAP Services:

Semiadditive Measures and Inventory Snapshots, (Paragraph 0009).

6.   The title of the invention is not descriptive (e.g. Title refers to semi-additive

aggregation, which is not recited in any of the independent claims, which are more

generally directed to aggregating data using two different aggregation functions). A new

title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

7.   Claims 2-13 and 27-31 objected to because of the following informalities.

Appropriate correction is required.

        Regarding Claims 2-13 and 27-31, the claims merely recite that the

system/method enables a user to perform one or more actions, however it is noted that

the user does not actually perform any of the recited steps. For the purposes of

examination examiner assumes the applicant will amend the claim to recite that actually

performs the one or more steps/actions.

Claim Rejections - 35 USC § 102

8.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9.   Claims 1, 3-5, 14, 26 and 28-30 are rejected under 35 U.S.C. 102(b) as being

anticipated by Oracle 8i as evidenced by at least the following reference Oracle 8i

Application Developer's Guide – Fundamentals (1999).

Regarding Claims 1 and 14 Oracle teaches a system and method comprising:

- evaluating a parent member for a (first/second) account by aggregating

(first/second) members (dimensions, facts, data elements, values, etc.) according to a

(first/second) aggregation function wherein the first/second aggregation functions are

different (e.g. Roll-up, Cube, Totals, Sub-totals, etc.; Paragraph 3, Page 20-2; Last

Paragraph, Page 20-9; Last Bullet, Page 20-12; Paragraph 1, Page 20-13 Tables 20-1 -

- 20-2, 20-10).

It is noted that the preamble has not been given patentable weight. A preamble

is generally not accorded any patentable weight where it merely recites the purpose of a

process or the intended use of a structure, and where the body of the claim does not

depend on the preamble for completeness but, instead, the process steps or structural

limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA

1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Examiner suggests applicants amend the claims to positively recite any intended

limitations currently in the preamble in the body of the claims.

If the preamble where to be given weight it is noted that Oracle further teaches

aggregating a measure over a non-additive dimension (e.g. year) of a cube for

(first/second) accounts (set of data) comprising a plurality of (first/second) members

(data elements, values, etc.) of the non-additive dimension (years; Last Bullet, Page 20-

12; Tables 20-1 -- 20-2).

Regarding Claims 3 and 28 Oracle teaches a system and method further

comprising providing an interface (e.g. command line SQL commands) that enables a

user to select (utilize) an additive aggregation function (SUM, Average, etc.; Tables 20-

1, 20-2, 20-3) with which to aggregate additive dimensions of the cube (Paragraph 1,

Page 20-13; Last Bullet, Page 20-12).

Regarding Claims 4-5 and 29-30 Oracle teaches a system and method further

comprising providing an interface that enables a user to pair non-additive dimension

with a non-additive by account aggregation as well as pair the first account with the first

aggregation function (Paragraphs 1, 3, Page 20-13; Last Bullet, Page 20-12; Tables 20-

3, 20-9, 20-10).

Regarding Claims 6 and 31 Oracle teaches a system and method further comprising providing an interface that enables a user to pair the first account with a first account type that is associated with the first aggregation function (e.g. Region, Department; Paragraph 2, Page 20-6; Tables 20-1, 20-2, 20-3).

Regarding Claims 7 and 32 Oracle teaches a system and method wherein the the account type includes one of income, expense, flow, balance, asset, liability, statistical (profit, top-10, etc.; Tables 20-3, 20-8. 20-9) or missing account types.

Further regarding claims 5-7 and 31-32, it is noted that the type of data (account) or label applied to the data (account) merely represents non-functional descriptive material and are not functionally involved in the steps recited nor do they alter the recited structural elements. The recited method steps would be performed the same regardless of the specific data or label used to describe the data. Further, the structural elements remain the same regardless of the specific data or label used to describe the data. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); In re Lowry, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP 2106.

Regarding Claim 26 Oracle teaches a system and method for analytically modeling data comprising:

- a processor, memory and a relational data store, analytical data service
(software, subsystem) and a reporting client (Tables 20-1, 20-1, 20-3) in communication
with the processor (Oracle 8i requires at lease one processor and memory to run
therefore they are inherent in the Oracle 8i product/system; further Oracle 8i by
definition is a relational data store);

- a mechanism for aggregating a measure over a non-additive dimension of a
cube, the mechanism comprising a means for evaluating a parent member for a
(first/second) account having a plurality of (first/second) members of the non-additive
dimension by aggregating the (first/second) members according to a (first/second)
aggregation function wherein the first/second aggregation functions are different
(Paragraph 1, Page 20-13; Last Bullet, Page 20-12; Paragraphs 1, 3, Page 20-13;
Tables 20-1, 20-2, 20-3); and

- outputting the evaluated parent member to a user (Tables 20-1, 20-2, 20-3, 20-
8, 20-10).

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

11.   Claims 2, 8-13, 27 and 33 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Oracle 8i as evidenced by at least the following reference Oracle 8i

Application Developer's Guide – Fundamentals (1999) as applied to claims 1, 3-5, 14,

26 and 28-30 above and further in view of Shah et al., U.S. Patent No. 6,662,174.

        Regarding Claims 2 and 27 Oracle does not expressly teach enabling a user to

designate a measure as semi-additive as claimed.

        Shah et al. teach a system and method for analytically modeling data comprising

enabling a user to designate the measure as semi-additive ('providing an interface';

Column 5, Lines 6-20; Column 7, Lines 59-68; Column 8, Lines 1-15; Figure 5) in an

analogous art of data modeling/analysis.

        Shah et al. further teach a system and method for aggregating a measure (fact,

parameter, data, etc.) over a non-additive dimension of a multidimensional data set

(first/second account, record set, multidimensional data;), the non-additive dimension

having a parent member that includes one child member comprising (system/method for

analytically modeling data; hierarchies; Column 3, Lines 14-42; Column 4, Lines 33-45;

Column 5, Lines 5-25; Figures 4, 7, 8):

- evaluating the parent member for the data (first/second account) by

aggregating the child members to a (first/second) aggregation function (Column 4, Lines

33-45; Column 7, Lines 48-68; Column 8, Lines 16; Figures 3A, 7);

- a relational data source, an analytical data service and a reporting client

(Figure 1; Column 1, Lines 33-68);

- enabling users to pair (match, assign, associate, link, etc.) a non-additive

aggregation function with the non-additive dimension ('providing an interface'; Column

4, Lines 33-46; Column 5, Lines 6-39; Figures 3A, 8);

- enabling a user to select an additive function with which to aggregate additive

dimensions of the cube (providing an 'interface'; Column 2, Lines 50-68; Column 4,

Lines 7-45; Column 6, Lines 1-20; Figures 6, 8, 9);

- enabling a user to pair the non-additive dimension with a non-additive (by

account, record set, etc.) aggregation function Column 2, Lines 50-68; Column 4, Lines

7-45; Column 6, Lines 1-20, 36-60; Column 7, Lines 48-68; Figures 6-9);

- enabling a user to pair the data (first/second account, record set ,etc.) with a

first account (data, record) type, the type being associated with the (first) aggregation

function (Column 4, Lines 33-46; Column 5, Lines 23-39; Column 9, Lines 1-10, 55-68);

and

- enabling a user to pair the data (first account) with an aggregation function

wherein the aggregation is at least one of the following: null, average of children, first

child, last child, first non-empty, or last non-empty (Column 7, Lines 48-65; Column 8,

Lines 1-15; Column 8, 45-53).

It would have been obvious to one skilled in the art at the time of the that the

system and method as taught by Oracle would have benefited from enabling users to

designate semi-additive measures in view of the teachings of Shah et al., since the

claimed invention is merely a combination of old elements, and in the combination each

element merely would have performed the same function as it did separately, and one

of ordinary skill in the art would have recognized that the results of the combination

were predictable.

Regarding Claims 8-13 and 33 Oracle teaches a system and method for

analytically modeling data enabling a user to pair the data (first account) with an

aggregation function wherein the aggregation is at least one of the following: null,

average of children, first child, last child, first non-empty, or last non-empty (Paragraphs

1, 3, Page 20-13; Tables 20-7, 20-8).

While Oracle does not expressly teach all of the potential aggregation functions

listed official notice is taken that the aggregation functions claimed are old and well

known to those skilled in the art of data analytics and/or modeling (e.g. Microsoft OLE

DB for OLAP (1998), Bullets 1-5, Page 76; Pages 79, 108, 110).

It is noted that the type of aggregation function utilized merely represents non-functional descriptive material and are not functionally involved in the steps recited nor do they alter the recited structural elements. The recited method steps would be performed the same regardless of the specific aggregation function utilized. Further, the structural elements remain the same regardless of the specific aggregation function utilized. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); In re Lowry, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP 2106.*

Claim Rejections - 35 USC § 102

12.　　The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13.　　Claim 25 is rejected under 35 U.S.C. 102(b) as being anticipated by Rauer et al.,

U.S. Patent No. 6,161,103.

　　　　Regarding Claim 25 Rauer et al. teach a system and method for analytically

modeling data comprising (Figure 1, Elements 167, 170, 184; Figures 5, 27, 28; Figure

30, Element 3010):

　　　　- providing a (first) interface comprising a plurality of first user-selectable

elements each associated with a respective account (dataset) type (Figures 28, 30);

　　　　- receiving a user selection of at least two of the (first) user-selectable elements

Column 7, Lines 35-45; Column 8, Lines 50-58; Column 11, Lines 18-31; Figures 28,

30);

　　　　- defining first/second accounts based on the (first) user-selectable elements

(Column 15, Lines 10-27; Column 16, Lines 60-68; Column 17, Lines 45-48);

　　　　- providing a (second) interface comprising a plurality of (second) selectable

elements each associated with a respective non-additive function (action, value,

formula, equation, etc.; aggregate builder; Column 7, Lines 35-45; Column 8, Lines 50-

58; Column 11, Lines 18-31; Figures 28, 30);

- for each of the (first/second) accounts receiving a user selection of one of the (second) selectable elements (Column 7, Lines 35-45; Column 8, Lines 50-58; Column 11, Lines 18-31; Column 29, Lines 19-26, 53-60; Figures 28, 30);

- associating the (first/second) account with the non-additive function that was selected from the (second) user selectable element Column 7, Lines 35-45; Column 8, Lines 50-58; Column 11, Lines 18-31; Figures 28, 30);

- evaluating a parent member by aggregating (first/second) members according to the non-additive aggregation function associated with the (first/second) account (Column 15, Lines 10-27; Column 16, Lines 60-68; Column 17, Lines 45-48; Column 29, Lines 19-26, 53-60; Column 30, Lines 1-10; Figures 28, 32, 34, 35).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Gray, Data Cube (1996), teaches a method for analyzing multidimensional data used cubes to aggregate using well known aggregation functions and user-defined aggregation functions both additive and non-additive members of a plurality of dimensions.

- Colliat, OLAP, Relational and Multidimensional Database Systems (1996), teaches a method analyzing multidimensional data comprising aggregating a measure

of multiple non-additive dimensions of a cube having a plurality of additive and non-

additive members the dimensions having a parent member that includes at least one

child member.

     - Chatziantoniou, Optimization of Complex Aggregation Queries in Relational

Databases (1997), teaches a method for aggregating a measure over additive and non-

additive dimensions of a cube comprising a plurality of members and a plurality of

different aggregation functions.

     - Zaman, Computing and Querying Datacubes (2001), teaches a system and

method for aggregating a measure over a non-additive dimension of a cube as a means

for evaluating a parent member by aggregating members according to one or more

aggregation functions and reporting/outputting the evaluated parent member to a user.

     - Best Practices for Business Intelligence Using the Microsoft Data Warehousing

Framework (2001), teaches a commercially available system and method for analyzing

data comprising aggregating data over a plurality of additive and non-additive

dimensions having a parent member with at least one child member.

     - Boon, Integrating Analysis Services with Reporting Services (2004), teaches a

the public sale or use of a system and method for analytically modeling data comprising

a graphical user interface enabling a user to associate one or more aggregation

functions over non-additive dimensions of a cube.
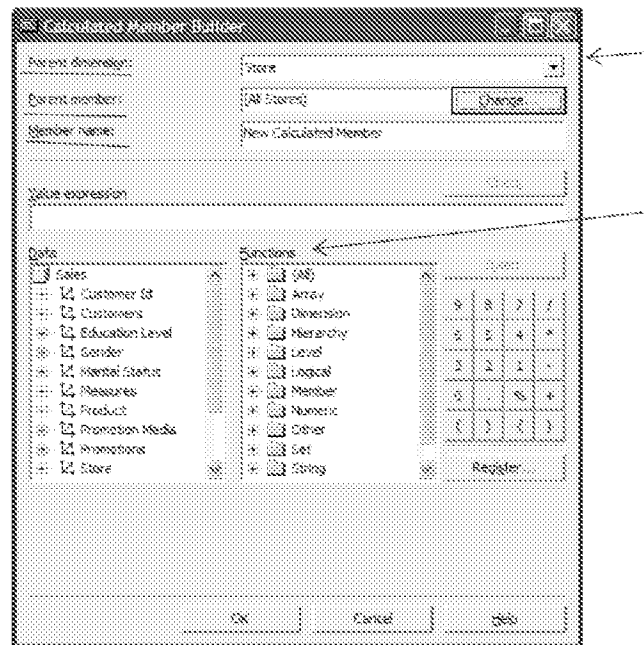
Any inquiry concerning this communication or earlier communications from the

examiner should be directed to SCOTT L. JARRETT whose telephone number is

(571)272-7033. The examiner can normally be reached on Monday-Friday, 8:00AM -

5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Bradley Bayat can be reached on (571) 272-6704. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Scott L Jarrett/
Primary Examiner, Art Unit 3624